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PATENT APPLICATION  
DOCKET NO.: S-80-400 (SEST.02/US/12)

~~Gp 2834~~

#9  
11-12-02  
RW

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

**Inventor(s): Elizabeth Smela**

Serial No.: 09/918.293

Examiner: Thomas M. Dougherty

Filing Date: **July 30, 2001**

Group Art Unit: 2834

**Title: Conjugated polymer actuator responsive to electrical stimulation**

**ASSISTANT COMMISSIONER FOR PATENTS**  
Washington, D.C. 20231

## INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ( ) under 37 CFR 1.97(b), or  
(Within three months of filing national application, or date of entry of international application; or before mailing date of first office action on the merits, whichever occurs last)
- (X) under 37 CFR 1.97(c) together with either a:
- ( ) Certification under 37 CFR 1.97(e), or
- (X) a \$240.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ( ) under 37 CFR 1.97(d) together with a:
- ( ) Certification under 37 CFR 1.97(e), and
- ( ) a petition under 37 CFR 1.97(d)(2)(ii), and
- ( ) a \$130.00 petition fee set forth in 37 CFR 1.17(i)(1)  
(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

(X) A check in the amount of \$240.00 is enclosed herewith.

( ) Please charge to Deposit Account #50-1491 the amount of \$\_\_\_\_\_

At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2623 pursuant to 37 CFR 1.25.

(X) Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Citation together with copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

( ) A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO 1449, as presently understood by the individual(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

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Respectfully submitted,

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Typed Name: ~~Christie Cochran~~

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FORM PTO-1449

ATTY. DOCKET NO.

SERIAL NO.

S-80,400 (SFST.02USU1)

09/918,293

LIST OF PATENTS AND PUBLICATIONS  
FOR APPLICANT'S INFORMATION  
DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANT

Elizabeth Smela et al.

FILING DATE

GROUP

July 30, 2001

2834

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	A					

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
	AA	2287030A	09/06/1995	United Kingdom	C08G73	02	X	
	BB	WO99/24991	05/20/1999	World Organization	H01B1	12	X	

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	AAA	Sequoia, Elsevier, "Electrical studies of Polyaniline and its application," <i>Synthetic Metals</i> , Vol 18, pgs. 365-370, 1987.
	BBB	Lewis, T.W.; Spinks, G.M.; Wallace, G.G., "Development of an all polymer electromechanical actuator," <i>Intelligent Polymer Research Institute</i> , pgs. 520-521, 1996.
	CCC	Sansinena, J.M., Olazabal, V., Otero, T.F., Polo da Fonseca, C.N., De Paoli, Marco-A., "A solid state artificial muscle based on polypyrrole and a solid polymeric electrolyte working in air," <i>Chem. Community</i> , pgs. 2217-2218, 1997.
	DDD	Okuzaki, H., Kunugi, T., "Rapid Communication, Electronically induced contraction of Polypyrrole film in ambient air," <i>Electronically Induced contraction of Film</i> , pgs. 1591-1594.
	EEE	Adams, P.N., Devasagayam, P., Pomfret, S.J., Abell, L., Monkman, A.P., "A new acid processing route to polyaniline films which exhibit metallic conductivity and electrical transport strongly dependent upon intrachain molecular dynamics," <i>Journal of Physics: Condensed</i> , pgs. 8293-8303, 1998.
EXAMINER		DATE CONSIDERED